

Proper Functioning Condition
And
Amendment 6 Assessments and Ratings
For
Mulkey Allotment
Summer 2011

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Introduction

This document records the findings for the Amendment 6 rangeland assessment process as described under the 1982 Inyo National Forest Land and Resources Management Plan (Forest Plan). The Amendment 6 process is an assessment tool designed to describe the vegetative and watershed conditions within range allotments, and provides a process for determining grazing utilization levels based on improving or maintaining appropriate vegetation and watershed conditions on the allotments. This process uses the Key Area concept, where a “key area”, such as a meadow or upland area, is rated in lieu of rating every area on the allotment. A Key area is further defined as: A portion of rangeland selected because of its location, grazing or browsing value, or use. It serves as a monitoring and evaluation point for range condition, trend, or degree of grazing use. Properly selected key areas reflect the overall acceptability of current grazing management over the rangeland. A key area guides the general management of the entire area of which it is a part.” (USDA 1997). Under the Amendment 6 protocol, when Key Areas are rated at levels lower than “Fully Functional”, specific actions are triggered, as identified in the Amendment 6 document, which are aimed at improving the condition of the meadow or upland site.

The Watershed and Vegetation portions of the assessment are rated separately, using different processes. The protocol used for the Vegetation assessment is described in the “Existing Vegetation Condition on the Kern Plateau” section below. For the Watershed portion of Amendment 6, six categories are assessed and rated for Wet and Moist Meadow key area types, and include:

- Surface Organic Thickness
- Soil Compaction
- Rills and Gullies
- Presence of Hummocks
- Bare Ground
- Headcuts and Nickpoints

Each category is assessed by an interdisciplinary team that examines the conditions on the ground related to each category. Using the individual ratings for each category, an overall rating is given to each Key Area site as one of either four ratings: Fully Functional, Functioning at Risk, Degraded or Non-Functional. In order for a riparian area to be rated as Fully Functional, four of the six assessment parameters must rate as a Level 4, with no checks in the lowest two categories (Level 1 and Level 2). A rating of Functioning at Risk is given if only one category is rated Degraded, two or more are in the At Risk or Fully Functional, and no checks are recorded as Non-Functioning. This process is described in more detail within the Amendment 6 document of the Forest Plan.

The **Proper Functioning Condition** (PFC) assessment is another method for describing the hydrologic and vegetative conditions, or functions, specifically as it relates to stream channels and associated floodplains. It does not set utilization standards but helps inform grazing management decisions. Together these assessments give an overall view of the characteristics and conditions of the area under examination to develop an informed decision on appropriate grazing management strategies. This report will be used in conjunction with other resource evaluations, such as wildlife, rare plant, fisheries, archaeology, etc. to set a comprehensive grazing management strategy for the allotments.

Existing Vegetation Condition on the Kern Plateau

Vegetation data were rated as excellent, good, fair, and poor. For this analysis these terms are defined below and originate from the vegetation allowable use matrices in Appendix A of the Amendment 6 Forest-wide Range Utilization Standards (USFS 1995). (These tiers levels set preliminary utilization levels that can then be adjusted using the Amendment 6 Watershed ratings.)

- Excellent condition- the highest and second highest ratio of desired plants to total herbaceous (first and second tiers).
- Good condition- the third-to-lowest ratio of desired plants to total herbaceous (third tier).
- Fair condition- the second-to-lowest ratio of desired plants to total herbaceous (fourth tier).
- Poor condition- the lowest ratio of desired plants to total herbaceous, or the bottom tier of the Amendment 6 matrices.

Range vegetation transects read in 2010 and 2011 indicate that 45 of the 55 key areas assessed across four allotments were in excellent condition (see Table 1); these key areas had high ratios of desired-to-total herbaceous plant species. The 10 remaining key areas were in good condition but had a lower ratio of desired-to-total herbaceous plant species. No key areas rated below good condition (i.e., below the third tier of the Amendment 6 matrices).

Table 1. Amendment 6 vegetation ratings.

Allotment	Number of Key Areas	
	Excellent	Good
Monache	14	1
Mulkey	8	0
Templeton	11	8
Whitney	13	1

Individual Meadow Assessments and Discussions:

Ash Meadow

Ash Meadow			
Meadow Type	Vegetation Condition	Watershed Rating	PFC Rating
Wet meadow	Excellent	Fully Functional	Proper Functioning Condition

Meadow Description: Ash Meadow is located at the top of the Owens Lake watershed. The meadow complex is comprised of classified ecological types of Sloped Mixed Meadow (MU6), Relict Organic Soils (MU16), Moist Meadow Drainage Ways (MU19) with the upper, drier portion of the meadow classified as Alluvial Fans/Rothrock sage (MU7). The upper slope edges of the meadow are classified as Hanging Meadow type (MU3). The vegetation species transect was taken through MU16, at the bottom of the shallow ravine, because this is where cattle forage. The stringer

channel was stable with good vegetative cover and was displaying healthy floodplain development within the incised channel. The narrow floodplain was inundated with water at the time of the assessment.



Photo above: Location of Amendment 6 assessment within Relict Organic Soils (MU19) ecological type.

Watershed Rating: This meadow rated as Fully Functional, with all parameters rating at level 4.

- **Organic Layer:** A minimum 4-in. sod layer was observed throughout the meadow, with some areas measuring up to 8 in.
- **Hummocks:** No hummocks were identified within the Key Area.
- **Rills/gullies, Compaction:** None was observed. The sod layer was very thick and spongy.
- **Bare ground:** The little bare ground observed appeared to be caused by rodent disturbance.
- **Headcuts:** One 10-in. headcut was observed within the narrow channel but did not appear to threaten floodplain functionality. Rodent activity was observed around edges of headcut.

Although the Key Area that was assessed was in Fully Functional condition, there are some concerns with headcuts and hummocks within the upper, drier portion of the meadow (as noted on the map). Treated headcuts and some nickpoints were also observed, but compaction and sod layer were not measured to get an overall rating for this portion of the meadow. This portion of the meadow occurred in an area where the drainageway narrowed which may cause concentrated use by cattle (i.e., because of the morphology of the meadow). The dry meadow above this constricted area did not exhibit the same impacts, indicating that this condition appeared to be isolated from the majority of the Ash Meadow complex.

Vegetation Rating: Ash was a wet meadow that rated at excellent condition and fell in the highest tier of Amendment 6. *Carex simulata* was the dominant species recorded, comprising almost 2/3 of the hits. (Assessed Sept. 2011)

PFC Rating: This channel reach exhibited a variety of vigorous, high-seral plant species along the banks and within the floodplain. The floodplain was well-connected to the stream channel with adequate features to dissipate flood energy. There was a 10-in. high headcut that was observed in the channel, but it did not appear to affect the functionality of the channel, nor to be migrating.



Photo above: Area of hummocks in the constricted drainageway (MU19) portion of Ash Meadow but is outside of the key area.



Photo above: Overview photo of the most western arm of Ash Meadow, exhibiting good vegetation cover in a drier ecological type.

Bear Meadow

Bear Meadow			
Meadow Type	Vegetation Condition	Watershed Rating	PFC Rating
Wet Meadow	Excellent	Fully Functional	No Perennial Channel

Meadow Description: Bear Meadow is in the upper Mulkey Creek watershed and is approximately 23 acres in size. Central Bear Meadow is characterized by the hanging meadow type (MU3), with riparian stringers (MU4) feeding into the center, and sloped mixed-meadow (MU6) leading along the exiting stringer. The vegetation transect was taken predominately within the hanging meadow type, which was characterized by moist-meadow plant community.

Watershed Rating: Bear Meadow rated as Fully Functional, with all parameters rating as Fully Functional, except for Hummocks and Compaction, which rated as Level 3.

- **Organic Layer:** There was an average of 2 in. of sod throughout the meadow, although it was thinner in the sagebrush and dry-vegetation areas of the meadow.
- **Hummocks:** Several patches of hummocks occurred in the wetter portions of the meadow.
- **Rills/gullies:** None were observed.
- **Compaction:** Some compaction was noted as platiness in areas adjacent to the channel and in sporadic locations throughout the meadow. The soil type was comprised of much finer particles than were observed in other meadows, which would make it more susceptible to compaction.
- **Bare ground:** The limited bare ground that was observed throughout the meadow was attributed primarily to rodent activity.
- **Headcuts:** Historically active headcuts were observed in the channel, but these were well-vegetated, appeared stable, and had no movement after the 2011 high runoff.



Photo above: Overview of Bear Meadow.

Vegetation Rating: Bear was a wet meadow that had a drier terrace (moist meadow characteristics) on about one half of the key area. The transect encompassed both parts of the meadow. The meadow rated at excellent condition and fell in the second highest tier of Amendment 6. *Carex simulata* and *Eleocharis pauciflora* were the most common vegetation recorded. (Assessed Sept. 2011)

PFC Rating: No PFC was taken for this meadow.



Photo above: Incised channel displays recovery with stabilizing vegetation.



Photo above: Area of hummocks in Bear Meadow.

Bullfrog Meadow

Bullfrog Meadow			
Meadow Type	Vegetation Condition	Watershed Rating	PFC Rating
Moist/Wet	Excellent	Fully Functional	PFC

Meadow Description: Bullfrog Meadow lies at the western extent of Mulkey Meadow, perched up above the main Mulkey meadow system. The meadow complex is about 90 acres consisting of ecological types wet meadow drainageways (MU2), hanging meadows (MU3), alluvial fans/rothrock sage (RU7) and relict organic soils (MU19) at the upper end of the meadow. There is a large pond at the southern margin of the meadow, influencing soil moisture and the vegetation component. There is extensive historic headcuts in the meadow throughout the channel which have been stabilized by work from the watershed crews. These treatments, if managed improperly, could re-activate and continue the upstream movement. The stream channel below these treatments is recovering with thick, vigorous vegetation that is trapping sediment and appears to be aggregating. In the past four years, cattle management has focused on trying to concentrate cattle use on the alluvial benches above the *Carex sp.* dominated channel bottom. Vegetation transects were taken through the wet meadow drainageway type.



Photo above: Looking east across Bullfrog Meadow.

Watershed Rating: Bullfrog Meadow rated out as Fully Functional, with all parameters rating as Fully Functional, except for Compaction, which rated at Level 3.

- **Organic Layer:** Overall there was an average of 1.5 in. sod layer, which ranged up to 3.5 in. in some areas.
- **Hummocks:** Sporadic small clumps, which were mostly ant hills, were observed within the meadow.
- **Rills/gullies:** None were observed.
- **Compaction:** There was some compaction observed in the “cow punch” areas, which were wet areas with obvious hoof indentations, but these were not observed throughout most of the meadow.
- **Bare Ground:** Less than 10% of bare ground was observed; this bare ground appeared to be mostly because of rodent activity.
- **Headcuts:** The headcuts observed within the stream channel were well-vegetated and showed no upstream movement from the 2011 high run-off event, indicating that they have stabilized for “normal” impacts.

Vegetation Rating: Bullfrog Meadow had wet and moist characteristics. The transect for this key area was placed in the moist portion of the meadow and rated at excellent condition and fell in the highest tier of Amendment 6. The area was visually dominated by a mix of forbs and grasslikes. Cattle grazing had already occurred here and made plant identification to species difficult. (Assessed Sept. 2011)

PFC Rating: The channel rated as Proper Functioning Condition with heavily vegetated streambanks noted. Headcuts within the stream channel were still evident, although stabilizing treatments were completed in the 1980s and 2000s. They remained stable with no migration during the 2011 runoff events.



Photo above: Bullfrog Meadow looking west. In the foreground the alluvial deposits from 2011 flood event on July 6 are visible.



Photo above: Bullfrog Creek in the section above the treated headcuts.

Diaz and Dutch Meadows

Diaz Meadow			
Meadow Type	Vegetation Condition	Watershed Rating	PFC Rating
Wet Meadow	Excellent	Fully Functional	No Perennial Stream

Meadow Description: Diaz Meadow is located on the eastern extend of the Mulkey Allotment. The drainage flows east into the Owens Valley and is captured by LADWP aqueducts. Diaz and Dutch Meadows occur within the same area and encompass approximately 122 acres of meadow type. Meadow ecological types are comprised as Riparian Stringers (MU4), Moist Meadow Drainageways (MU19), and Relict Organic Soils (MU16). Abandoned Terrace dominates the lower portion of Dutch Meadow and was not considered in the assessment. The watershed assessment and vegetation transects were taken above the “Frog Pond” in Diaz Meadow, which was inundated with water because of the abundant summer rains that followed a very heavy winter snowpack.

Watershed Rating: Diaz Meadow rated as Fully Functional with all parameters rated at Level 4 (Organic Surface Layer, Compaction, Rills and Gullies, Bare Ground and Headcuts/Nickpoints) except for Hummocks, which was rated as Level 3.

- **Organic Layer:** The sod layer was continuous throughout the meadow with 2-3 in. of sod along the margins of the meadow, and up to 10 in. of peat within the center of the meadow.
- **Hummocks:** Hummocks were present in 3 different groupings and covered not more than 5% of the meadow. Vegetation composition was consistent surrounding and on top of the hummocks.
- **Rills/gullies, Compaction, Headcuts:** None were observed.
- **Bare Ground:** Less than 5% bare ground was observed in the meadow, and this bare ground appeared to because of rodent activity with cattle tracks overlaying the already disturbed soil.



Photo above: Soil sample from Diaz meadow from the drier margins of the meadow.

Vegetation Rating: Diaz was a wet meadow that rated at excellent condition and fell in the highest tier of Amendment 6. This key area was visually dominated by *Carex utriculata* and *C. simulata*. The transect for this key area crossed very wet areas (potential fens). Cattle grazing had already occurred and appeared to be very to fairly light in these wetter areas. The sides of the meadow appeared to be slightly drier and had hummocking, bare ground, rodent activity, and trampling. The bare ground appeared to be the result of the combined impact of rodent activity and cow punches/trampling. Despite these observations, only 6 hits of bare ground were recorded along the transect, and all but one of these hits appeared to be because of natural plant interspaces. (Assessed Sept. 2011)

PFC Rating: No perennial stream within this meadow.



Photo above: Overview of Diaz Meadow. The “Frog Pond” is to the right of the frame.

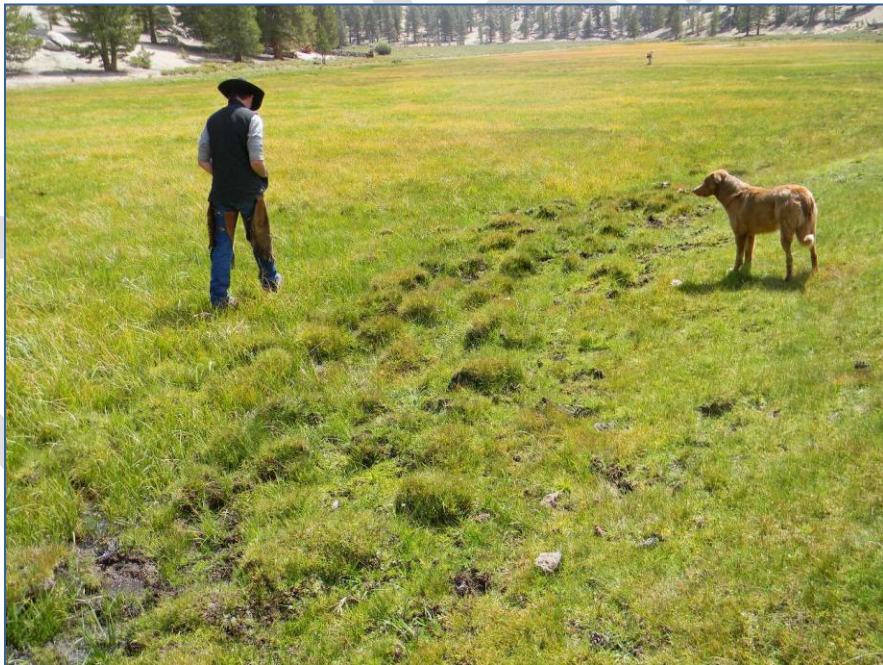


Photo above: Hummocks within Diaz Meadow were restricted to the margins of the meadow.

Horseshoe Meadow

Horseshoe Meadow			
Meadow Type	Vegetation Condition	Watershed Rating	PFC Rating
Moist Meadow	Excellent	Not Completed	Not assessed

Meadow Description: Horseshoe Meadow is located on the northernmost boundary of the Mulkey Allotment at about 9,800 feet. Like Mulkey Meadow, it is a complex of meadow-types that totals 422 acres. Meadow classification types include wet meadow drainageways (MU3), hanging meadows (MU3), riparian stringers (MU4), sloped mixed meadow (MU6), alluvial fans/rothrock sage (MU7), terrace/cryaquolls/salix (MU12), relict organic soils (MU16), moist meadow drainageways (MU19) and glacial outwash fans/organic soils (MU23).

Watershed Rating: A full Amendment-6 watershed assessment was not completed for this meadow in 2011, although a vegetation transect was taken.



Photo above: Horseshoe Meadow looking down an incised spring channel that is exhibiting vegetation recovery.



Photo above: Good vegetation cover within channel with rodent activity obvious in foreground of photo.

Vegetation Rating:

Horseshoe was a complex of meadow types, and the vegetation transect was read through a moist meadow type that rated at excellent condition and fell in the highest tier of Amendment 6. Cattle were present at the time of the transect reading. Twenty-five percent of recorded hits were bare ground. Visually, there appeared to be great portions of bare ground that were likely because of the combined impact of rodent activity and cow punches/trampling. This transect was a re-read from

a transect read in June 2010. Vegetation was a mix of mid- and late-seral forbs and grasslikes.
(Assessed Sept. 2011)
PFC Rating: Not assessed.



Photo above: Overview of Horseshoe Meadow in drier portion of the meadow that exhibits evidence of extensive rodent activity.



Photo above: Close-up of ground from photo above. Collapsed rodent burrows are evident and more susceptible to impacts because of the wet conditions in 2011.

Mulkey Meadow

Mulkey Meadow			
Meadow Type	Vegetation Condition	Watershed Rating	PFC Rating
Wet Meadow	Excellent	At Risk	3 reaches at PFC

Meadow Description: Mulkey Meadow is a 5-mi long meadow and sits at about 9,600 feet in elevation. It is a complex of meadow-types that totals 406 acres. Meadow classification types include wet meadow drainageways (MU2), hanging meadows (MU3), riparian stringers (MU4), sloped mixed meadow (MU6), alluvial fans/rothrock sage (MU7), terrace/cryaquolls/salix (MU12), relict organic soils (MU16), moist meadow drainageways (MU19) and floodplain/cryaquolls/salix (MU22). Since 2008, utilization has been measured within the main meadow to range from 15% to 29%, out of an allowable use of 35% during early season use.

Watershed Rating: Amendment 6 was assessed starting above the electric exclosure. The assessment traversed through three ecological types: MU3, MU16 and MU22. The meadow was rated as Fully Functional to At Risk because of the presence of hummocks in some key areas of the assessed area.

- **Organic Layer:** The organic surface layer averaged 2 in. throughout the meadow, with a very well-developed root structure observed. There was a high occurrence of gravel, sand, and silt within the alluvial deposits, and it appears that the floodplain is in a state of development.
- **Hummocks:** Two areas of hummocks were observed and were quite developed, but isolated from the rest of the meadow. One area of hummocks appeared to be an old trailing location. Other areas where hummocks were observed included wet stringer areas.
- **Rills/gullies:** No rills or gullies were observed within the meadow, but there were drainage paths within the high banks of the alluvial fan terraces that did not seem to interact with the meadow function except for contribution of sand and gravel into the stream system.
- **Compaction:** Compaction of the soil was observed only in the trailing areas between some of the hummocked areas but not within the meadow area. Also worth noting was that when comparing two soil samples between the grazed meadow and the meadow within the exclosure for compaction and rooting depth, no differences were observed except that there appeared to be more weedy species in the sample taken within the exclosure.
- **Bare Ground:** Some bare ground was observed and appeared to be from rodent activity; it occurred in less than 5% of the meadow.
- **Headcuts:** None were observed.

Vegetation Rating: Mulkey Meadow was a wet meadow that rated at excellent condition and fell in the second highest tier of Amendment 6. The transect was placed just to the east of the Mulkey Exclosure. Vegetation was dominated by mid-seral *Eleocharis* species and late-seral *Carex* species. Cattle had already grazed this area at the time of the transect reading. Some rodent activity was evident but bare ground only accounted for three hits. (Assessed Sept. 2011)

PFC Rating: Mulkey Creek is divided into three reaches to assess PFC because of the different characteristics of each section of stream. Reach A (lower Mulkey) includes the portion of stream below the exclosure, Reach B (mid Mulkey) includes the area within the exclosure, and Reach C (upper Mulkey) includes the portion above the exclosure for .75 mi upstream. All three reaches rated at Proper Functioning Condition, with a major consideration given to the stability and function of the channel as it responded to the July 6, 2011 flood event (rain on hail). Extensive

flooding occurred during this event, affecting many channels within the meadow and throughout Mulkey Allotment. Reaches A and B exhibited good width-to-depth ratios (deep, narrow channels). Although the reach above the exclosure was rated at PFC, it was noted that more desirable fish habitat in some sections of the channel would be achieved with a narrower and deeper channel. It should also be noted that this productive stream is not within the native distribution of the California golden trout.



Photo left: Two soil samples from Mulkey Meadow: the left is from inside the exclosure, the right is from outside the exclosure in a cattle congregating area.



Photo above: Overview of the assessment area within Mulkey Meadow. Note areas of deposition on the steambanks from the 2011 flood event.



Photo above: An area of hummocks located about 100 yards above the enclosure within Mulkey Meadow. The hummocks were well-vegetated and appeared to be created by trailing activities.



Photo above: The dark area of deposition indicated the level of the water during the July 6, 2011 flood event, and demonstrated the effectiveness of the floodplain at catching sediment and organic debris, an important component for floodplain development.

Photos for Mulkey Creek, inside enclosure, PFC



Photo above: Taken towards the bottom end within the enclosure in Mulkey Meadow.



Photo above: Taken within the middle section of the Mulkey Meadow enclosure where the channel exhibits a higher gradient.

Photos for Lower Mulkey Creek PFC



Photo above: Streambanks and developing floodplain in lower Mulkey Meadow.



Photo above: Near the “upper end” of lower Mulkey Meadow, channel displayed well-developed floodplains and sinuosity.

Overholster Meadow

Overholster Meadow			
Meadow Type	Vegetation Condition	Watershed Rating	PFC Rating
Moist Meadow	Excellent	Fully Functional	PFC

Meadow Description: Overholster Meadow is located on Mulkey Creek about a mile downstream of the main Mulkey Meadow area. Meadow classification types include riparian stringers (MU4), alluvial fans/rothrock sage (MU7), terrace/cryaquolls/salix (MU12), relict organic soils (MU19), terrace&floodplain/cryofluvents/salix (MU21) and dissected terrace with wet&moist meadow (MU24). The Amendment 6 was assessed through the MU19 and MU 12 ecological types.

Watershed Rating: Overholster rated as Fully Functional for the Amendment 6 assessment with all parameters except for compaction.

- **Organic Layer:** Overall, there was a 1-in. sod layer that was continuous throughout the meadow; there was also a thick layer of vegetation throughout.
- **Hummocks, Rills/gullies, Headcuts:** None were observed.
- **Compaction:** Compaction was rated as Level 3 because of compaction where current-years “hoof-punches” were observed in the more dense, clay-like soil types. Soils were still wet because of the abundant rains in the summer.
- **Bare ground:** The limited bare ground that was observed, appeared to be caused by rodent activity.

Vegetation Rating: Overholster was a moist meadow that rated at excellent condition and fell in the highest tier of Amendment 6. Vegetation was a mix of mid- and late-seral forbs and grasslikes. (Assessed Sept. 2011)



Photo above: Soil sample from MU19 ecological type, taken at location of current-year “hoof punch”.



Photo above: Overview of Overholster Meadow in MU19 type.

PFC Rating: The portion of Mulkey Creek that flowed through Overholster Meadow was rated at Proper Functioning Condition. Some lateral movement of the channel was observed, with well-vegetated banks on the inside bend, indicating an increase in sinuosity. Large fish were observed in this reach, with abundant pools, cover, and spawning sites. Streambanks and floodplain were heavily vegetated with a multiple age-class willow stand.



Photo above: Mulkey Creek through Overholster Meadow. Some areas of recent deposition were evident.



Photo above: Mulkey Creek through Overholster Meadow. This flowed through the ecological type MU12.

Poison Meadow

Poison Meadow			
Meadow Type	Vegetation Condition	Watershed Rating	PFC Rating
Wet meadow	Excellent	At Risk	Not taken

Meadow Description: Poison Meadow is located at an elevation of 10,800 feet, the highest meadow in the Mulkey Allotment. It is approximately 33 acres, classified as a hanging meadow type (MU3). There are relic organic layers at the top of the meadow, where there is an extensive spring system that supplies the water for this meadow. Within the moist to wet meadow type at the upper end of the drainage, hummocks are abundant in patches throughout the bench area. The area was inspected for the presence of fen-type soil structure, but the soils in the spring area had a high component of mineral sand incorporated into the matrix, which does not meet the requirements of a fen. This year the rodent activity was very obvious and appeared much more extensive than was noted in previous visits.

Watershed Rating: Poison Meadow rated Functional—At Risk. Level 3 ratings were assigned to Compaction, Bare ground and Headcuts, with Hummocks rating between Level 2 and 3. Organic Layer thickness rated at Level 4.

- **Organic Layer:** Organic layer thickness was 2 to 3 inches in the moist and wet areas of the meadow and declined in thickness as it entered the drier portions of the meadow.
- **Hummocks:** There were areas of hummocks throughout the upper portion of the meadow within wet areas, but not in all wet areas or springs. Some change of vegetation species was noted on top of hummocks, but these were still “wet dependent” species.
- **Rills/gullies:** None were observed.
- **Compaction:** Some compaction was observed in the form of platiness within the moist soil areas, but the rooting depth was not affected by this limited compaction. No compaction or other compaction-indicators were observed in the *Carex*-dominated wet areas of the meadow because of the thick organic (peat?) layer. There was compaction noted in the hoof-punch areas from current-year use mainly because of the wet conditions of the 2011 summer.
- **Bare ground:** Abundant rodent activity throughout the meadow was observed, mostly concentrated in the upper terraces where the vegetation was characteristically more a “dry” ecological type.
- **Headcuts:** Nickpoints were observed throughout the spring channels but appeared well-vegetated and stable in the upper portion of the meadow. Some movement of the treated headcuts was observed in the lower portion of the meadow, with abundant rodent activity observed around the margins of the headcut/treatment area. Cattle trampling superimposed on the rodent burrowing caused a more unstable condition along the headcut margins.

Vegetation Rating: Poison was a wet, sloping meadow that rated at excellent condition and fell in the highest tier of Amendment 6. Cattle had already grazed this area at the time of the transect reading. Visually, bare ground from rodent activity appeared to be common, and hummocks were also frequent. This wet meadow had drier patches that were included in the transect. The transect did not capture a large patch of disturbed ground (likely disturbed because of combined rodent and cattle impacts). *Carex utriculata* and *Carex simulata* were the dominant species recorded. (Assessed Sept. 2011)

PFC Rating: Not assessed.



Photo above: Overview of dry portion of the meadow showing abundant rodent activity.



Photo above: Small spring channel flowing from spring "bench" area at top of Poison Meadow.



Photo above: Hummock areas on the spring “bench” with rodent activity observed throughout area.



Photo above: Treated headcuts within Poison Meadow. Rodent activity coupled with the wet summer and the overlay of cattle trampling was evident by the bare soil. However, even with these factors, the headcuts did not migrate and remained stable during 2011.